Develop quality care facilities and resources for pediatric patients with chronic, complex medical needs in Michigan

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BACKGROUND

There has been a persistent presence of pediatric patients each year that remain in Michigan Medicine's pediatric intensive care unit (PICU), neonatal intensive care unit (NICU), or stable vent unit (SVU) for months to years after being medically ready for discharge from the hospital.

Discussions with social workers and care managers in the PICU have revealed the frustration and difficulty that comes with placement upon discharge for pediatric patients with ongoing critical care needs. Families must learn how to care for these medically complex children while making arrangements at home and work to accommodate their child's time-intensive care needs. Unfortunately, skilled nursing facilities, rehabilitation facilities, and nursing homes are not available options for children as they are for adults.

Pediatric patients should have a discharge option with a step-down level of care from the ICU, but more intensive than on the general medicine floor.

CURRENT CONDITIONS

The majority of patients who tend to require more intensive home care are premature infants or young children on ventilators. These patients are sent from the PICU/NICU to a "stable vent bed" to continue receiving hospital assistance while finding a new normal on the ventilator. Here, family is encouraged to act as a patient's primary caregiver while receiving continued education on vent care from the hospital. However, problems arise when patients have been appropriately stabilized, and the family is still not ready to take their child home safely.

When pediatric patients remain medically stable in the PICU/NICU/SVU, the care team's goal shifts from working toward addressing a medical problem to monitoring a baseline status. These patients are repeatedly discussed with new physicians every week with no medical problems to address. The families of these children tend to become either frustrated with the medical team or increasingly dependent on hospital resources.

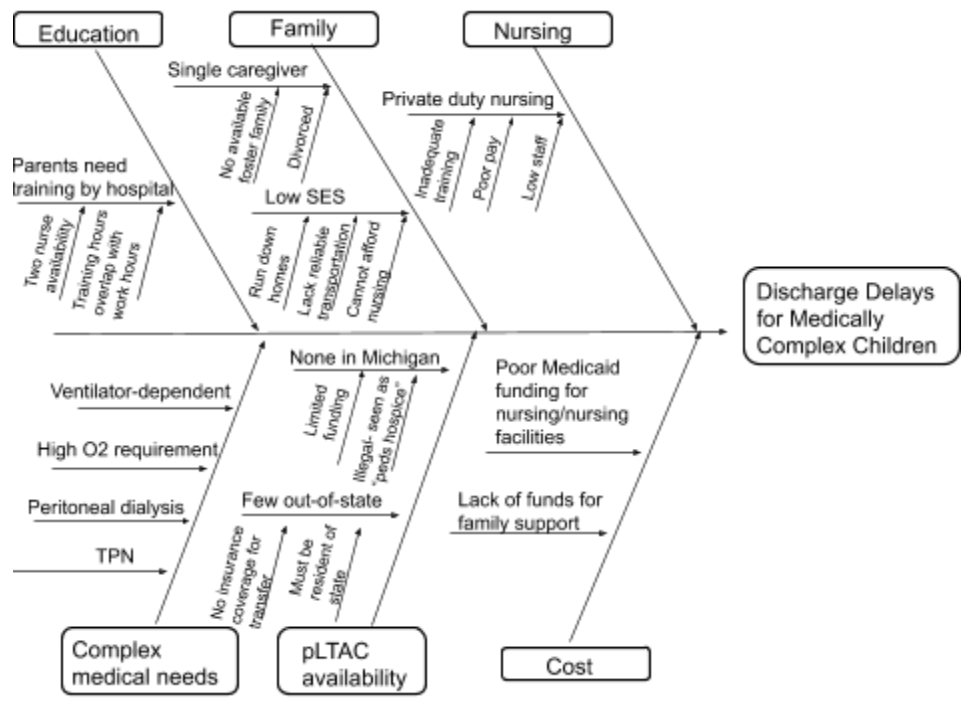
In other states, pediatric long-term acute care facilities (pLTACs) provide care to a variety of patients with ongoing medical needs in a residential setting. They provide an option for discharge from critical care hospital beds and provide respite care for families. There are currently no pLTACs in Michigan.

GOAL

From long-term to short-term:

1) Provide adequate support for families with chronically critically-ill children in transition from the PICU to home.
    - Create pLTACs throughout Michigan, starting with one small facility near Michigan Medicine, then slowly expanding throughout the state depending on patient distribution.
2) Mimic pLTAC environment within the hospital
    - Create a step-down unit in a room most similar to a home setting. Allow for ongoing education for family and use home equipment. Start with 1-2 rooms and expand capacity until no pediatric patients per year have extended ICU stays.
3) Reduce staff distress
    - Allow patients to be discharged to an alternate unit or bed to adjust expectations for caregivers who are used to caring for more acutely ill children.

ANALYSIS



PROPOSED COUNTERMEASURES

There does not yet appear to be a clear need for a separate facility such as a pLTAC in Michigan due to the small population this problem affects. The financial limitations of increasing nursing resources are a much larger problem beyond what can be addressed on a smaller scale first. In addition, the socioeconomic background of these families cannot be easily changed. Therefore, we recommend focusing on changes within Michigan Medicine to slowly mimic a pLTAC-environment, and improve data collection on the characteristics of this pediatric patient population.

- Consider adjusting the nursing-to-patient ratio in the SVU from from 2:1 to 4:1 when including discharge-ready patients.
- The amount of SVU beds has increased from 4 to 10 since its establishment. Consider adding more beds until no patients remain in the PICU or NICU due to full capacity.
- Add a tracking function within MiChart, rather than through a separate application as it is currently, to collect data on "delay days". This includes patients who remain hospitalized at least one day after medically ready for discharge.
- Compile historical data of codes for reasons of delay days to identify the most common root cause of extended hospital stays.